

# Allen County HamNews

March 2000

Volume 1 Issue 3

## Forms 610 Phased Out

from *The ARRL Letter* – With a single exception, the venerable FCC Form 610 now is history. The FCC phased out the documents February 16. Amateur Radio applicants now must use the Universal Licensing System forms (Forms 605, 606) for all purposes. There is one exception: FCC Form 610B Club Station application continues to be valid until the FCC finalizes its privatized club station call sign administrator program.

## Pre-March 21, 1987, Technician redux

from *The ARRL Letter* – To qualify for a General class license starting April 15, 2000, applicants must present valid credit for Elements 1, 2, and 3 at a volunteer examiner session. Those who held a Technician license, now expired or otherwise, prior to March 21, 1987, may claim Element 1 (5 WPM Morse code) and new Element 3 (current Element 3B, General exam) credit. Those who held a Technician license, now expired or otherwise, prior to February 14, 1991, may claim only Element 1 credit, as may anyone who has ever held a Novice ticket. The FCC rules provide Element 2 credit only for individuals who are currently licensed (or within the two-year grace period for renewal) at least at the Technician level. This means that before applying for a General license, a former amateur licensed as a Technician prior to March 21, 1987, and no longer licensed or within the two-year grace period for renewal, also must obtain Element 2 credit. To currently qualify for the Technician license (which conveys Element 2 credit) requires passing a 65-question two part exam (Novice and Technician). Starting April 15, Element 2 will be a single 35-question exam.

Please send any articles, corrections, for sale notices, etc. to the editor, Victor Guess, WB9UZA, (wb9uza at arrl.net). (You know where the @ sign goes don't you!) Please put "for newsletter" in the Subject line. Text should be plain ASCII, graphics should be JPEG or GIF. For those computer impaired: snail mail to 3311 Sanibel Drive, Fort Wayne, IN, 46815-4755.

**Deadline is the last Friday of the month.  
Please do NOT send anything in all caps!!**

## Internet Home Pages:

**Fort Wayne Radio Club:**

**<http://home1.gte.net/n9iww2/fwrc/>**

**New & Improved ACARTS site:**

**ACARTS: <http://www.acarts.com>**

## What's Inside

Fort Wayne Radio Club News & Meeting Information	pg. 2
Fort Wayne Radio Club Minutes	pg. 3
ACARTS News & Meeting Information	pg. 4
ACARTS Minutes	pg. 5
SOTA Wins Award	pg. 5
What About SWR	pg. 6
Indiana QSO Party	pg. 8
YL 2000 Update	pg. 8
Special Events Station	pg. 8
Enhanced DXCC Card Checking Coming	pg. 8
New ACARTS Web Site	pg. 8
FCC Gives Morse Element Credit To Expired Novices	pg. 9
Macnet Information	pg. 9
Hamfest Schedule	pg. 9
Severe Storm Reporting Criteria	pg. 10
VE Exam Schedule	pg. 11
For Sale	pg. 12
Membership Application	pg. 13

## Tornado Awareness Week

The week of March 12-18 is scheduled as Tornado Awareness Week and two warning drills are scheduled for Monday, March 13. One will be in the early afternoon around 1:30 and the other in the evening around 6:30. The Skywarn Spotter Net will be activated during the drills and all spotter stations are urged to check in, giving your approximate location and if you heard any of the sirens, let us know which one.

Howard, N9ADS

## E-Mail Delivery of Allen County HamNews

In order to receive Allen County HamNews via e-mail you will need:

- An e-mail service that permits large enclosures
- A copy of Adobe Acrobat Reader.

Acrobat Reader is a free download from the Adobe web site: <<http://www.adobe.com/>>. (You probably already have a copy.) It is also available on the FWRC web site: <<http://home1.gte.net/n9iww2/fwrc/>>.

If you would like to receive Hamsplatter via e-mail please send an e-mail message to your club's secretary selecting one of the following three options:

1. I wish to receive HamNews via e-mail.
2. I wish to continue to receive a mailed copy and an e-mailed copy.
3. I wish to download a copy from the club web site. (no e-mail copy needed)

Vic Guess, WB9UZA  
Allen County HamNews Editor

# Hamsplatter

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## President's Corner



E-mail has become a major part of our lives these days. In my job, when I am not on the road meeting people face to face, I am in the office reading or writing e-mails or surfing the internet. Then, when work is done, I find myself often checking e-mails from family and friends, and of course, e-mail for ham radio and club purposes. On the surface e-mail seems to be a great thing. You can instantly send messages and files to almost anywhere, and you have a permanent copy of what you sent or received.

Although it is a great tool, I constantly find myself wanting a more personal means of communicating. I guess that is why I prefer the personal contact of ham radio versus being on a "chat group" on the internet where everyone can hide behind an alias if they desire. It is true that with cyberspace you can 'communicate' with people on the other side of the planet, but ham radio is still the most personal way to do this.

Certainly some of the young people that had previously entered the field of ham radio have been diverted from our ranks by the internet. But I believe that eventually they too will seek the human connection that ham radio affords versus the impersonal, sterile world of on-line communicating.

So, next time you find yourself a slave to a keyboard, remember that it won't be long until that drive home with the 2 meter mobile, or an evening with radios that glow in the dark, when you can talk to actual humans. They may be long time friends in your town, or a friend that you have not met yet on the other side of the nation or anywhere in the world. The internet may be the great new tool of the next generation, but we certainly enjoy the people to people medium that the miracle of radio has given us.

Talk to you on the bands.....

73, Steve

## March Program

I will be giving my AMSAT presentation (originally given at the Fort Wayne Hamfest last November) at the March 2000 meeting of the Fort Wayne Radio Club. It is a beginners' introduction to Amateur Satellite operations with pictures of the satellite station at the K9LA Field Day operation, June, 1999 (K9LA placed third in 1A).

If you don't have an appointment with a Green Beer on St. Patty's day, come on out.

**Date:** Friday, 17 March 2000

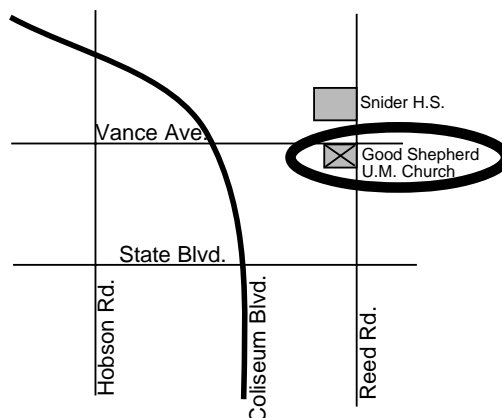
**Meeting time:** 7:30 PM

**Place:** Good Shepherd United Methodist Church 4700 Vance Avenue, Fort Wayne, IN

73, Charlie Hall, KC9LA

**Next Club Meeting - Friday,  
Mar. 17, 2000, 7:30 PM  
Good Shepherd United Methodist  
Church, corner of Vance  
Ave. & Reed Rd.**

**Program: AMSAT, presented by  
Charlie Hall, KC9LA**



## FT. WAYNE RADIO CLUB MEETING MINUTES 18 February 2000

The February meeting of the Ft. Wayne Radio Club occurred on 18 February, 2000. It was held at the Good Shepherd United Methodist Church and was hosted by President Steve Nardin. There were about 30 attendees.

There were no minutes as there was no business meeting at the January auction.

Bob Streeter gave the Treasurer's report. As of 18 February 2000 the club had realized income of \$1465.92 and expenses of \$115.13. It had \$77.66 in cash and \$7409.28 in checking. At last month's auction a total of 43 people signed-up to participate. This resulted in 5 people selling things and 15 people buying things. All in all there were gross sales of \$153.35 and a net income to the club of \$54.92.

Steve Nardin announced that it appeared we would be able to make use of the Girl Scout camp site again for Field Day, same as last year. That site was outstanding, and it appears we have it with about 99% probability.

Clint Stedge announced that he has been in contact with the Diabetes Walk-a-Thon personnel who are most interested in having the FWRC provide communications support again for this year's event. It will occur on 17 June.

Steve Nardin announced that the club Field Day trailer/generator had been vandalized. It has been stored out on Larry Temenoff's property since last year's Field Day. Preliminary analysis indicates damage to the tires (slashed), and damage to the meters in the control panel. Larry Temenoff is already pursuing a source of replacement tires. Carl Rittenhouse and Gerry Young are working together to repair/replace the meters.

Carl Rittenhouse noted that he and Jim Pliett had been approached by a High School/ROTC organization called the Young Marines who are interested in obtaining licenses and generally becoming very active in amateur radio. They have a

meeting place next to Omni-Source and access to an 80' tower on the property. It appears they would like to establish a MARS station on the site. Jim and Carl are pursuing and plan to invite several of their members to our next club meeting.



Bill Hall announced that a special VE test session is planned for Monday, March 6 at the Calvary Temple Church starting at 7:00 p.m. The session will occur in room 610 and will be provided for all classes of license.

Cliff Shreve expressed concern regarding the combination of the FWRC and ACARTS newsletters and resultant name change to the Allen County HamNews. He commented that this likely portends combining the two clubs and was of the opinion that the FWRC for its part should maintain its independence. A considerable discussion ensued between a number of club members on the subject. Steve Nardin commented that the Board of Directors were very cautiously exploring the idea of melding the two clubs together and certainly did not plan to rush into anything.

Becky Stockslager conducted the 50/50 raffle. The \$18.00 pot was split between Kim Machamer and the club.



Following the business meeting, Carole Burke, WB9RUS gave a presentation on the Young Ladies Radio League (YLRL) including details of its recent convention in Long Beach, California.

RESPECTFULLY SUBMITTED,

AL BURKE, WB9SSE

# STATE OF THE ARTS

## ACARTS Officers

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## President's Message



The annual SKYWARN training session was held during our February meeting this year. It was well attended, as members of the Fort Wayne Radio Club were invited to attend our session since their scheduled training was not going to take place until the end of March. For some it was the first time attending severe weather spotter training. For many others it was a refresher session. The spotter network is an important part of the National Weather Service's program to track severe storms and issue warnings. Even with doppler radar, they still need the eyes of trained spotters. Remember the guidelines for reporting severe weather. Even more important, remember the guidelines for repeater usage during a watch and actual storm activity. During watches listen for the "W" after the beep and the carrier drops. This means the repeater is in a watch condition. Keep your transmissions short and leave a pause before you continue your conversation so that someone with information or inquiry can get into the repeater.

There has been some inquires about code and theory classes this spring. There was a sign up list at the Hamfest, but it cannot be found. If someone knows where this list is please let me know. If you know of someone who is interested let me know also. Having classes depends on how many people are interested, and finding a place where we can meet twice a week. We probably will not be able to do it at Turnstone because of the construction. Also, starting in May our General Meeting will take place on the 4th Tuesday of the month during construction. Well, that's all I have for this month.

73 Vic , KA9LTV

## March Program

**Solar Power**, given by Mark Downing. Mark has been in the business of installing solar power systems for the past eight years so he certainly knows his stuff! Below are some of the topics Mark will cover:

- What solar cells are and how they work.
- Pros and cons of solar power.
- How to use them for emergency or field day power.
- What kind of price range one can expect to pay for panels.
- Sources for such.

## March Meeting Schedule

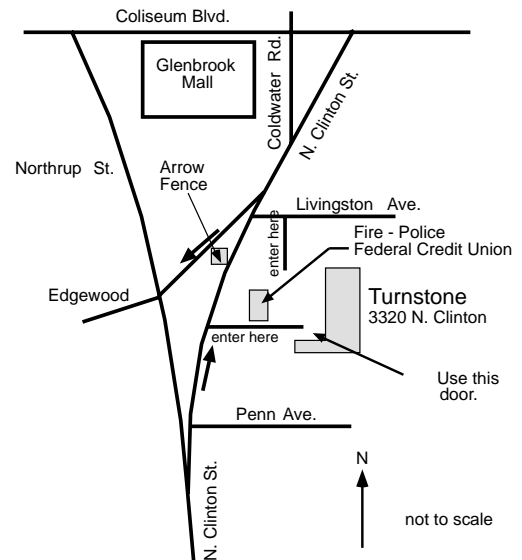
All meetings are at 7:30 PM at Turnstone unless otherwise noted.

Board Meeting: Tues. 3/14/00 All members are encouraged to attend.

General meeting: Tues. 3/21/00

**Program: Solar Power**, by Mark Downing

Tech Committee: Wed. 3/22/00 7:00 PM - Everyone is welcome.



## February ACARTS Board Meeting Minutes

The meeting was run by Vic, KA9LTV with about 10 members in attendance.

Joel, KB9RH gave us a quick overview of the hamfest general mailing database status. The entire database was just run through the U.S.P.S. NCOA service, to correct addresses and catch any people that have moved. Since it was last run (Sept 99) there had been 169 moves (out of the 6000+ in the database). We had also tacked on the FWRC membership database to get it's addresses up to date for the combined newsletter bulk mailing.

John, N9IYI talked about the SKYWARN training session set for the following Tuesday. It will be in a different location in Turnstone, due to their construction efforts. It was also noted that our normal meeting room for the April - October general meetings will have to be changed due to construction and a conflict. It was decided to move these meetings to the 4th Tuesday instead of the 3rd, for that time period.

Doug, N9NNT talked about the antenna/feedline testing that we had done on Jan 29th, and that all of the repeater site antennas but one are in good shape. Plans are underway to get that one bad antenna repaired/replaced as soon as possible. He also proposed buying an additional 6 tuned cavities at a cost of approximately \$1200 so we can "duplex" the 88 voice repeater

and the 144.39 APRS digipeater on the same antenna (presently the 147.255 voice repeater and the 145.01 NETROM digipeater are similarly duplexed). This will get

APRS on the air sooner, and allow us to maintain one "spare" 2M antenna in case one of the others should fail. The money is already in his budget, and the expenditure was approved by a voice vote.

Vic, WB9UZA, talked about the progress in combining the two clubs newsletters, and how it was going to logistically work out over the coming year. We then proceeded to fold, spindle and mutilate (oops, fold, staple and label) the February newsletter.

Submitted: Don A. Gagnon WB8HQS



## February ACARTS General Meeting Minutes

The ACARTS February general meeting was the annual SKYWARN training session for ACARTS and FWRC members. Approximately 50 people were in attendance. The presenter from the National Weather Service office in North Webster was John Taylor, their chief forecaster. It was a very informative session.

Submitted: Don A. Gagnon WB8HQS

Note: The picture of Don's certificate has been removed from this version to save download time.

**Congratulations  
to Don Gagnon,  
WB8HQS, 1999  
SOTA editor**

**For the second year in  
a row, the 1999 State  
of the ARTS took  
second place nationally  
in the Amateur Radio  
News Service's annual  
competition.**

## What About SWR

by Dick Erwin, N9BNA

SWR gets cussed and discussed a lot by Hams when working on or talking about antennas. Having recently heard some on the air discussion about feed lines and antennas, it is plain to me that many Hams are barking up the wrong trees to lower SWR. They are doing a lot of things that are really not necessary in this regard with trying to lower SWR.

I have studied two publications rather extensively over a number of years that do an excellent job of telling where the scientific and engineering communities are with regard to SWR and what to do about it. These two books are the ARRL Antenna Book and the ARRL published book titled "Reflections" by M. Walter Maxwell, W2DU. In my opinion every Ham who wants to know and be serious about his antennas should **own and read** both of these publications. I did not say that you have to understand every word that you read - many of you will not because you are not a tech type person. You will get enough to appreciate what is going on and learn the right way to cope with it. Maxwell states in his book that one of his major reasons for these writings is to identify the misconceptions and to clarify the confusion that results. What follows is my attempt.

All of the information that follows is derived from these two respected publications and all facts came from these pubs. and none of them are my own. My discussion comes from what I have learned from reading these two books. I am not going to get too technical in this discussion with all the whys and wherefores about the whole situation.

First off I am assuming that we all know reflected waves occur with the antenna impedance is different than the transmission line impedance at the connection point of the line

and antenna. I would like to open this discussion with the fact that the reflected wave that everyone worries about is not lost or going back and burning up any finals in the transmitter. This idea causes many Hams to struggle to get the line flat (1:1 SWR) and it is not necessary at all. What really happens is the reflected wave does go back down to the transmitter end of the

line and is turned around and sent back up to the antenna **in phase** with the forward power from the transmitter. This is measured with an ammeter in the transmission line showing the relative current peaking. Yes there is more RF power going up the line to the antenna than just that from the transmitter. Yes it will again reflect when it reaches the antenna as it did before because of the change in impedance that the energy sees when it hits the antenna. No, the

SWR on the line is still there but all the power from the transmitter is absorbed and radiated by the antenna except for the normal losses that all transmission lines have even with a flat (1:1 SWR) line.

It is the forward wave and the reflected wave moving in opposite directions in the feed line that sets up the famous standing wave that we hear so much about. The amplitude of the standing wave voltage or current is the phasor sum of the forward and reflected amplitude voltage or currents along the line. Both waves are constantly changing as they move along the line with regard to the phase. The sum of the two waves (now called the standing wave) go from a max. to a min. value every quarter wave as they move along the line. Having gone along a **half wave of line** they complete one cycle. The SWR number is the ratio of the max. to the min. that this Standing Wave attain in their travels along the line. There is always a separation of 90 degrees between the voltage and current **standing waves**. Why all of this happens is beyond the scope of this discussion but it is a fact. This 90 degree difference in the voltage and current standing waves has lead many people astray and caused a lot of misinformation to have been disseminated to hams. This **is not** the phase angle of either the forward or reflected wave voltage/current that is determined in other ways that are also beyond the scope of this discussion. This does not make the reflected wave a pure reactive power which is not real power. The reflected wave is real power. What we really want to do here is see how the impedance of the transmission line changes as we move along the line. Impedance is equal to the sum voltage (forward and reflected) divided by the sum current (forward and reflected). Because both the voltage and current are constantly changing as we move along the line this is a difficult thing to determine without some sort of help to make it easy. That help comes in the form of the graph that is called a Smith Chart. Knowing the SWR, the Smith Chart provides the means for determining the impedance in the line at any point between the antenna and the transmitter. Getting to use the Smith Chart is a very interesting educational experience that more Hams should undertake but it too is beyond the scope of this article.

For a given set of conditions the Smith Chart comes up with the impedance that the line connected to a given antenna provides at the other end where we are connecting a transmitter. It requires that an SWR be determined. The popular SWR meter provides this SWR. The Smith chart then can give us the line impedance at any point on the line and it is the transmitter end of the line we are interested in.

**SWR number is the ratio of the max. to the min. of the Standing Wave in the line.**

## SWR – Continued from page 6

When we get to the transmitter the impedance presented is dependent on (1) the impedance at the antenna and (2) the characteristic impedance of the line as well as the line length. The impedance that is presented is not  $50 + j0$  ohms, which it can never be with SWR, the transmitter is not properly adjusted (It should have been tuned to a 50 ohm dummy load) and will not provide the maximum power that it is capable of. This is because reactance in the line is reflected in to the output of the tuned circuit detuning it. There can be damage to the transmitter if operated under these conditions. What has to be done is the transmitter has to be retuned (we assume that it had previously been tuned into a dummy load) to accommodate the change in impedance the line has presented. If the transmitter output circuit components can accommodate this change then it goes back to providing max. power to the feedline and also turns the reflected wave around sending reflected power up the line. If the transmitter components cannot handle the impedance presented then another circuit must be added between the transmitter and the line. This circuit is called an Antenna Tuner or Antenna System Tuner. We will use the term "AT" for it.

This device when adjusted properly provides a  $50 + j0$  ohm impedance at its input to the transmitter output circuit so the transmitter puts out max. power. It also provides a proper impedance to the line **and** also the connected antenna at the other end of the line. The AT output provides the "R" the line shows at the feed point and the opposite reactive "j" that the line shows. This is called resonating the line by producing the conjugate impedance to the line. The conjugate matching theory says that the conditions at the antenna will also be a conjugate match because the transmission line is a 4-terminal network. This means that the line presents the antenna R and the opposite reactive "j" to that of the antenna when conjugately matched. The values of the R & "j" at the antenna is a different value than at the transmitter end of the line. The value of the antenna impedance connected to the line contributes to the impedance value of the line at the transmitter. It is at this time that we have the transmitter seeing the proper impedance it needs to put out max. power and the line antenna connection is conjugately matched so that all of the **transmitter** power is absorbed and radiated by the antenna. The reflected power is still generated and reflected.

It is at this point where the engineering community and a lot of less enlightened hams differ. The engineering community looks at how much the SWR condition reduces the amount of power that the antenna radiates and what it does to the received signal at the other end of the circuit. Hams should not look at trying to lower SWR

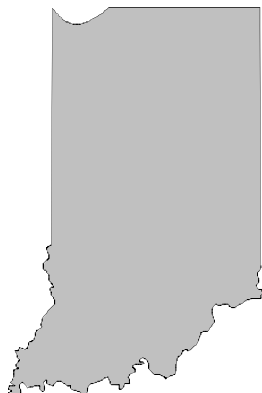
but take the approach we are discussing here.

Maxwell's "Reflections" has many graphs and charts relative to the situation and I will give you some figures that these charts provide. It takes 1 dB of attenuation to barely detect a decrease in signal at the receive end. This is about 1/6th of an S unit on the "S" Meter. that is not much in terms of signal deterioration at the receiver end. What is done is to determine what the **additional** loss is because of the SWR that is present in the transmitter system. Remember that there is some attenuation in any line even when it has a 1:1 SWR on the line so that loss will always be there. He has a chart that plots the additional attenuation in the line because of the SWR that we want to be less than 1 dB. There has to be about 7:1 SWR on the line on 80 & 40 meters to get this much additional loss. You can have over 5:1 on 20 meters and down at 10 meters you would be at 1.1 dB with this 5:1 SWR. The above numbers were set up with a good grade of RG-8 coax which has a flat line attenuation of .14 dB at 80 meters and .5 dB at 10 meters in a 50' selected length. This is considered a moderate loss line.. Lossier lines (RG58 & 59 ) would not allow as great an SWR to keep **additional** loss under 1 dB. when compared to the better grades of coax.

What we are saying here is that you have a lot of room with moderate SWR if you at least satisfy the transmitter and conjugate match the line at the station end before your signal deterioration is noticed at the receive end. As we move around the 80 meter band on a center fed half wave wire for example where the SWR excursions are the greatest and they can all be handled by retuning as we move around without any noticeable drop in the received signal at the other end.

There are limitations that are introduced by the transmission line used when operating with an elevated SWR such as excessive line current or line voltage that may exceed the limits of the particular line used. Checking out these things are beyond the scope of this article but you need to understand that we have not covered all the factors involved. We have only talked about coaxial cable. There is open wire line which show less loss than coax and with a good AT make excellent feed systems for wire antennas that can be any reasonable random length and work very well when compared to resonant wires.

I hope that I have been able to put forth enough information from these publications to get you to consider easy alternatives to messing with the line antenna connection to lower the SWR. Borrow or get the books and start reading.



## INDIANA QSO PARTY

### Crossroads 2000

#### Sponsored by:

Land of Lakes Amateur Radio Club

**May 6th: 1400 Z To May 7th: 2300 Z**

**Categories:** Single Operator, Multi-Operator, Club Station, VHF-UHF

**MODES:** Any Amateur Radio Mode. Fixed stations may be worked once per mode on each band. Mobiles may be worked once per mode on each band every time they change counties. Repeaters may be used for contact coordination but not for point credit.

**EXCHANGE:** Indiana stations—Signal report and county. Other stations send—Signal report, State, Canadian Province, or Country.

**SCORING:** Phone contacts count 2 QSO points, other modes count 3 QSO points. Indiana stations multiply QSO points by total of Indiana counties + states + provinces + countries worked. Stations outside of Indiana multiply the total QSO points by the number of Indiana counties worked.

#### SUGGESTED FREQS:

CW: 3539, 3739, 7035, 7115, 14045, 21045, 21120, 28045, 28120

PHONE: 1860, 3890, 7280, 14285, 21385, 28400, 50.14, 144.215, 432.120

**AWARDS:** Certificates will be awarded for First, Second, and Third place in each category, in each State, Province, and Country. A participation award will be issued to every station making at least 20 Indiana contacts. Prizes will be awarded to the top three overall scorers in and outside of Indiana. First and Second place prizes will be awarded for the VHF-UHF category operators.

Send logs with SASE to Sharon Brown, 905 W. Parkway Dr., Pleasant Lk, IN 46779. Questions or comments may be directed to Larry Wheeler, W9QR at [lwheeler@mindspring.com](mailto:lwheeler@mindspring.com) or at 219-238-4733. Logs must be received by 6/11/2000.

## YL 2000 UPDATE

from *The ARRL Letter* – The International YL 2000 gathering gets under way September 29 and continues until October 2 in Hamilton City, New Zealand. A YL 2000 update information page and on-line registration form now are available on the YL2000 Web site, <http://www.wave.co.nz/pages/osborneg/yl2000.html>. The pages include information on the YL2000 Award. A mirror site is at <http://www.qsl.net/zl1os> and may offer faster access for some countries. The International YL 2000 event is sponsored by New Zealand Women Amateur Radio Operators.—Bev Osborne, ZL1OS

## Special Events Station

From: Gary Reece, WB9UYT

The Mizpah Shrine Radio Unit, W9FEZ, will commemorate the 90th anniversary of Mizpah Shrine Temple with a special events station operating from 1200Z April 8 to 0500Z April 9. Frequencies will be 7.250, 14.250 and for the local hams we will be on 146.46 simplex. Certificates will be awarded on receipt of QSO information and a 9x12 inch S.A.S.E. Send to Mizpah Temple Radio Unit, 5126 Ann Hackley Rd., Fort Wayne IN 46835-1410.

## Enhanced DXCC Card Checking Coming

from *The ARRL Letter* – The ARRL DXCC Desk says that effective April 1, 2000, DXCC members may have their cards checked by local card checkers without having to mail cards to ARRL Headquarters. Under the new program, DXCC card checkers will be able to check all awards except 160 meter DXCC, as well as all QSLs from any current DXCC entity. This will apply to both new awards and endorsements. QSOs made up to 10 years prior to the current year will be eligible for field checking, while older cards and those from deleted entities still may be sent to ARRL HQ. The current DXCC Field Checking program ends March 31, 2000. Reappointment of DXCC Card Checkers under new criteria will be necessary. For more information, contact Bill Moore, NC1L, [dxcc@arrl.org](mailto:dxcc@arrl.org); 860-594-0234.—DXCC

## New ACARTS Web Site

Be sure to check out the “new and improved” ACARTS web page:

- Added content (and more going in shortly)
- Nicier to look at
- Much much easier to navigate.

<http://www.acarts.com>

## FCC Gives Morse Element Credit To Expired Novices

from *The ARRL Letter* – Anyone who ever held a Novice ticket—expired or otherwise—will be able to claim credit for Element 1, the 5 WPM Morse code examination, under revised Amateur Radio licensing rules going into effect April 15. The change was included in the version of the FCC's restructuring rules, published February 10 in The Federal Register.

The change affects Section 97.505(a)(5) of the rules that spells out element credit. That sentence now says: "An expired or unexpired FCC-granted Novice Class operator license grant: Element 1."

The rules already give Element 1 credit for those holding an expired or unexpired FCC-issued Technician Class operator license document granted before February 14, 1991, as well as to applicants possessing an FCC-issued commercial radiotelegraph operator license or permit that's valid or expired less than 5 years.

There's no indication, however, that the FCC intends to extend Element 1 credit to applicants who once held any other FCC-issued licenses now expired, including Tech Plus, General, Advanced, or Amateur Extra.

Because of other anomalies in the new rules, the ARRL is recommending for now that holders of Novice or Tech Plus licenses retain their license documents or copies in the event they need to claim Element 1 credit when upgrading under the new rules. When renewed after April 15, 2000, Technician Plus licenses will come back stamped "Technician," and the FCC has said it does not plan to keep track of which Technicians have Morse code element credit and which do not.

The FCC also has indicated to the ARRL that post-April 15 Technicians who subsequently qualify for HF operation by passing Element 1 will retain element credit for

upgrading purposes only for 365 days—the term of a Certificate of Successful Completion of Examination—not permanently, although this will not affect their ongoing Novice/Technician HF privileges. Without a change in the rules, affected Technicians attempting to upgrade more than a year after passing Element 1 would have to retake the Morse code examination.

The ARRL plans to file a petition for partial reconsideration asking the FCC to continue to keep track of which Technicians have Morse code element credit and which do not. The League also will ask the FCC to make Element 1 credit permanent for post-April 15 Technicians who successfully pass the Morse exam.

**Anyone who ever held a Novice ticket—expired or otherwise—will be able to claim credit for Element 1**

## Macnet Information

Macnet is the WWW group of ham radio operators that use Mac computers to extend their communications capabilities.

We stay in touch with each other via Internet and we have a HyperCard stack that tells the story of each of us called "Macnet Roster" that lists

- Amateur Radio CALL SIGN
- FULL NAME
- Street ADDRESS
- CITY, STATE, ZIP
- EMAIL ADDRESS

Macnet members can then communicate with one another directly or use our Macnet Moderated Mailing List to pose comments or questions to all of us on the Net.

To join Macnet, send YOUR STATS to <mailto:wd1v@amsat.org>.

## Regional Hamfests

<u>Date</u>	<u>Location</u>	<u>Contact Phone</u>	<u>Contact Email</u>
18 Mar 2000	Marshall, MI	616-979-3433	
19 Mar 2000	Sterling, IL	815-336-2434	lsherman@essex1.com
19 Mar 2000	Maumee, OH	419-243-3836	<a href="http://www.tmrahamradio.org">http://www.tmrahamradio.org</a>
25 Mar 2000	Coalton, OH	740-286-3239	kd8xl@juno.com
26 Mar 2000	Madison, OH	440-209-8953	tbrown@ncweb.com
26 Mar 2000	Grayslake, IL	847-291-4160	kf9zf@lightwriters.com
16 Apr 2000	Grosse Pointe Woods, MI	313-331-3336	n8fgk@amsat.org
29 Apr 2000	Stickney, IL	630-985-9256	DARCHamfest@aol.com
30 Apr 2000	Athens, OH	740-593-6474	jcornwell@eurekanet.com
19-21 May 2000	Dayton, OH	937-849-0604	wt8w@arrl.org



## SEVERE STORM REPORTING CRITERIA

NWS Northern Indiana

*Please Report the Following Immediately to the NWS at:*

1-888-668-3344

- ☐ Tornadoes      A violently rotating column of air... touching the ground  
(Use "1/2 - way rule")
- ☐ Funnel Clouds      (look for rotation: "*If it doesn't spin, don't call it in!*")
- ☐ Wall Clouds      (look for rotation and persistence (5-10 minutes).  
*Again, "If it doesn't spin, don't call it in!"*)
- ☐ Flooding      (include reports of water flowing over roadways)
- ☐ Hail      *any hail occurrence!* (Try to report sizes as "pea", "dime",  
"nickel", etc... do not use "marble-size" to report size!)
- ☐ Wind damage      large limbs broken off or down and any structural damage, no  
matter how slight

*The NWS issues warnings for tornadoes, hail diameter greater than or equal to 3/4", which is "dime size", winds at or in excess of 58 mph, and flooding.*

### Estimating Wind Speed

**25-31 MPH Large branches moving. Whistling heard in overhead wires**  
**32-38 MPH Whole trees moving. Inconvenience in walking against wind**  
**39-46 MPH Small branches (twigs) break. Impedes walking**  
**47-54 MPH Slight structural damage. Large branches may break**  
**55-63 MPH Moderate structural and tree damage**  
**64 & higher Heavy to severe structural and tree damage**

NWS Northern Indiana SKYWARN e-mail address: **IWX.Skywarn@noaa.gov**

**Homepage Address: <http://www.crh.noaa.gov/iwx>**

## VEC Schedule

ARRL-VEC to charge for code tests: Starting with the inception of the new FCC Amateur Radio licensing rules on April 15, 2000, the ARRL-VEC will charge a test fee of \$6.65 to take the Element 1 (5 WPM Morse code) test. Until April 15, the 5 WPM Morse code test (Element 1A) and/or the Novice written test (Element 2) are free at ARRL-VEC test sessions.

11-Mar-2000

Sponsor: PORTER COUNTY ARC  
Time: 9:00 AM (Walk-ins allowed)  
Contact: WILLIAM PETERSON  
(219)762-2887  
VEC: ARRL/VEC  
Location: FIRST BAPTIST CHURCH  
1401 W PORTER AVE  
CHESTERTON, IN 46304

12-Mar-2000

Sponsor: Land of Lakes Amateur Radio Club  
Time: 2:00 p.m.  
Contact: Bill at 219-475-5897  
or Packet at WD9DSN@N9LCF  
or e-mail sharon.l.brown@gte.net.  
Location: Red Cross Center in Angola

18-Mar-2000

Sponsor: MICHIGAN CITY ARC  
Time: 08:00AM (Walk-ins allowed)  
Contact: ROBERT A LYLES  
(219)874-3386  
VEC: ARRL/VEC  
Location: RED CROSS CHAPTERHOUSE  
232 E 8TH ST  
K9ET@ARRL.NET  
MICHIGAN CITY, IN 46360

25-Mar-2000

Sponsor: W5YI-VEC — WHITLEY COUNTY ARC  
Time: 9:00 AM (Walk-ins allowed)  
Contact: HENRY R MACKEY  
(219)244-7735  
VEC: W5YI VEC  
Location:  
CALL FOR SITE LOCATION  
COLUMBIA CITY, IN 46725

25-Mar-2000

Sponsor: UNSPONSORED  
Time: 1:30 PM (No walk-ins)  
Contact: WILLIS G BOLIN  
(219)724-4721  
VEC: ARRL/VEC  
Location: VE'S RESIDENCE  
113 W HONEYSUCKLE LN  
CALL AHEAD  
DECATUR, IN 46733

08-Apr-2000

Sponsor: PORTER COUNTY ARC

Time: 9:00 AM (Walk-ins allowed)

Contact: WILLIAM PETERSON  
(219)762-2887  
VEC: ARRL/VEC  
Location: FIRST BAPTIST CHURCH  
1401 W PORTER AVE  
CHESTERTON, IN 46304

13-Apr-2000

Sponsor: GOSHEN ARC  
Time: 07:00PM (Walk-ins allowed)  
Contact: LYLE L LONG  
(219)875-8455  
VEC: ARRL/VEC  
Location: GREENCROFT RETIREMENT CENTER  
HONAN BUILDING  
COLLEGE AVENUE  
GOSHEN, IN 46526

15-Apr-2000

Sponsor: GOSHEN ARC  
Time: 9:00 AM (Walk-ins allowed)  
Contact: LYLE L LONG  
(219)875-8455  
VEC: ARRL/VEC  
Location: GREENCROFT RETIREMENT CENTER  
HONAN BUILDING  
COLLEGE AVENUE  
GOSHEN, IN 46526

15-Apr-2000

Sponsor: PORTER COUNTY (IN) VE TEAM  
Time: 9:00 AM (No walk-ins)  
Contact: WILLIAM L PETERSON  
(219)762-2887  
VEC: ARRL/VEC  
Location: TRAVEL PORT RESTAURANT  
ROUTE 20  
PAPERWORK ONLY  
NO TESTING  
PORTER, IN 46304

18-Apr-2000

Sponsor: UNSPONSORED  
Time: 6:30 PM (Walk-ins allowed)  
Contact: TERRY L MILLER  
(765)457-2449  
VEC: ARRL/VEC  
Location: UAW LOCAL 1166  
2761 N 50 EAST RD  
KOKOMO, IN 46902

29-Apr-2000

Sponsor: W5YI  
Time: 02:00PM (Walk-ins allowed)  
Contact: G CURTIS VAN DE WATER  
(219)858-2474  
VEC: W5YI VEC  
Location: WORTH TAX SERVICE  
RTE 30 E  
WARSAW, IN 46580





## For Sale

- Diamond F22A 2-meter vertical antenna. Like new. \$75.

Gary Sturm N9IJB, 627-0334, rrrradioman@fwi.com



- Drake TR-4 xcvr 300w input ssb w/ ac supply & manual \$295

- KLM 2mtr fm-cw solid state amp 10w in 70 w out \$75
- Motorola EB-67 440mhz linear solid state amp 10w in 100w out 28vdc req \$95
- SBE SB-450TRC 2mtr-440 FM-CW transverter 20w in -10w out \$95
- RF Concepts RFC 4-310 solid state linear amp w/pre amp 30w in-160w out \$250
- T Berry T-SCAN 4ch scanner 150-170mhz handheld \$10
- Midland 13-500 2mtr fm mobile 12 ch xtal solid state 1-15w w/ manual \$95 obo
- RCA 710-A signal generator 255-540 mhz \$35
- Texscan VS-60 sweep generator \$25
- B&K model 120 VOM similar to Simpson 260 \$45
- Tandy computer A-B switch for serial port 9 pin DIN connectors \$10
- Cesco/Newtronics swr/relative power meter 2-150mhz \$15
- Jerold CATV converter \$25
- Philips CATV converter w/remote and manual \$25
- Collins T-217/GR 400mhz amp pair 4x-150a tubes autotune w/ schematic \$100
- telephone touch tone pad w/mounting \$5
- Eico model 250 AC VTVM & amp \$15
- Knight Kit P2/swr-pwr meter 1.8-432mhz w/manual \$25
- Icom HT spkr mic \$15
- Motorola 3 inch oscilloscope [looks like Tektronics] w/manual \$45
- B&K model 1243 Digital I.C. Color generator \$20
- 5ft Satellite dish w/mounting less LNA \$75
- Hustler tiltable trunk lip mount \$10
- 2ft square paper cutter [like new] \$25
- Radio Shack Duophone telephone amp \$5
- Kantronics the Interface RTTY,CW-UP terminal unit \$10
- Various 12-15 vdc power supplies \$10-15 each [ fixed and variable voltages]
- Antique RCA transistor AM-FM radio w/leather case \$60 obo
- Detailer II VCR color image enhancer \$15
- Trac CMOS electronic keyer \$35
- HB 40 mtr direct conversion solid state rcvr \$45
- Ramsey 40 mtr solid state QRP transmitter w/manual \$35
- Reveal 14.4 BPS internal FAX modem \$15
- Realistic PRO-13 vhf-uhf 4channel xtal scanner \$15
- HI POWER dual variable cap approx 100-150pf per section \$25
- Ceramic 2x6 inch tapped coil for ant tuner,etc. \$10
- Low Pass Filter attn 80db 47mhz up \$10
- Sinclair Labs model V450-200 filter duplexer tx 464 rx 469mhz \$25
- Bel Express LR radar detector XK band \$10
- EF JOHNSON vhf repeater [as is] \$10
- EF JOHNSON uhf repeater [as is] \$10

contact: Gene A. Fisher, W9MZH, 219-432-6175,

w9mzh@juno.com



- Icom W2A dual band HT (2m/70cm), includes -
  - a.. BC-77A wall charger
  - b.. BC-72 rapid charger
  - c.. AD-20 battery charging adapter
  - d.. BP-90 AA battery case
  - e.. HM-70 speaker mic
  - f.. FA-1443B rubber duck antenna (x2, these are the standard Icom ant.)
  - g.. The Pouch soft case
  - h.. after market 1100 MAh battery (x2)
  - i.. after market 1700 (?) MAh battery (x2)

Approximate cost when new, \$800. Asking \$300 for all. also:

- Kenwood MC-60A desk mic. Asking \$75.

Contact Brad Witte - N9EHK

Phone: 627-3316

E-mail: bwitte@concentric.net



- Yaesu FT-101E transceiver and digital display Yaesu YC-601 and outboard VFO FV-101B have spare set of new final tubes. and desk mike. \$200.00

- Clegg Venus SSB Transceiver for 6 Meters and Clegg Apollo 6 amplifier. Monitoring scope for 6 meters and Venus AC power supply for equipment for \$150.00. Have manuals for all equipment.

WD9DYM Don Davison 219-486-3506

WD9DYM@AOL.com



- Two (2) New Unopened Slim QUALCOMM Lithium Ion BATTERIES for QUALCOMM Cellular Phones QCP820/QCP2700/QCP1920. \$36 EA. (These sell for \$89 in F.W. Cell Phone Stores.)

N9FM Bob Waugh 219-484-7499



ICOM HT Model O2AT

with manual, soft case, duck, and original box

BC-30 Fast Charger

original battery pack (needs new cells)

IC-BP4 case

Delcom high capacity battery

MH-BP-8H NIMh battery

HS-10SA VOX unit

Sold as a package \$80

Vic Guess, WB9UZA, 219-485-7472, wb9uza@arrl.net

**NOTE:** For Sale & Wanted items will be listed for 2 months only unless the ad is resubmitted. If you sell an item the first month, please contact the editor so the item can be removed. Thank you.

## Membership Application for ☐ FWRC - or - ☐ ACARTS (check one)

Name: \_\_\_\_\_ Call sign: \_\_\_\_\_ License class: \_\_\_\_\_

Street address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP: \_\_\_\_\_<sup>-4</sup> Phone #: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Unlisted? ☐ Yes

Email address: \_\_\_\_\_ ARRL Member? ☐ Yes

### **Fort Wayne Radio Club Dues**

Regular membership ☐ \$15.00 / year

Family membership <sup>1</sup> ☐ \$21.00 / year

Student membership <sup>2</sup> ☐ \$6.00 / year

Associate membership <sup>3</sup> ☐ \$15.00 / year

(Memberships for Jul - Dec are 1/2 the stated amounts.)

1. Please list all names and calls on an attached sheet.

2. K-12 or full time student

### **A.C.A.R.T.S. Dues**

Regular membership ☐ \$12.00 / year

Additional family members <sup>1</sup> ☐ \$6.00 / year

Student membership <sup>2</sup> ☐ \$6.00 / year

Associate membership <sup>3</sup> ☐ \$6.00 / year

(New Regular memberships are \$1/month)

3. unlicensed member

4. 9 digit ZIP code required for US bulk mail

May we list your name, call & email address in our membership roster and on our club web site? ☐ Yes ☐ No

Both clubs now offer email delivery of this newsletter as a (Adobe Acrobat) PDF file, in lieu of a paper copy sent through the mail. How would you like your newsletter delivered? ☐ by email ☐ by snail mail ☐ download from web site.

Please attach a check (number \_\_\_\_\_) for the appropriate amount and bring to a club meeting or mail to:

Fort Wayne Radio Club  
PO Box 15127  
Fort Wayne, IN 46885

A.C.A.R.T.S.  
PO Box 10342  
Fort Wayne, IN 46851

For dual membership, fill out both sides and send 2 checks to either club.

### **ACARTS Voice Repeaters**

146.880 (-) General use / Skywarn priority

147.255 (+) General use / Autopatch priority

443.800 (+) General use

(All repeaters have autopatch, but 88 has only speed dial emergency #'s.)

### **ACARTS Digital Repeaters (digipeaters)**

144.390 (s) APRS - wide

144.970 (s) General use (FWA97) - local

145.010 (s) General use, NETROM (FWA) - wide

223.660 (s) BBS use ONLY NETROM (FWA220) - wide

### **Fort Wayne Radio Club Repeaters**

Voice: 146.76/16

146.94/34

444.875/449.875

ATV: 439.25 In, 910.250 Out

### **Area Traffic Nets**

(please submit any changes or corrections to the editor)

**IMO:** meets nightly at 2330 UTC (6:30 PM) on 146.88

### **Area Traffic Nets - Continued**

**Auburn:** meets Mon., Tue., Wed., Thur., Fri., & Sat. at 2300 UTC (6 PM) on 147.015+

**21 Repeater Group:** meets each Wednesday at 0200 UTC (9 PM) on 147.150

### **Miscellaneous Nets**

**Huntington ARES:** Sat/Tues at 0100 UTC (8 PM) on 146.685

**Portside:** 3rd Wednesday at 0030 UTC (7:30 PM) on 444.300

**Whitley Co. / ARES:** Wednesdays at 0015 UTC (7:15 PM) on 145.270  
- (Note 131.8 PL disabled for all nets)

**Whitley Co. Sunday:** Sundays at 0045 UTC (7:45 PM) on 444.550 +.  
(The 146.460 simplex crossbanding from both nets has been dropped.)

**Sloppy Code Net:** Sundays at 0200 UTC (9 PM) on 40M (7.1405 MHz). This CW net's purpose is to build confidence and help increase code speed. The speed is generally 1-10 WPM. If you want to copy only contact Henry, KA9ZNN at 749-8968 for details..

**Six Meter AM net (informal):** Every Saturday night at 7:00 pm on 50.580 MHz . Intercom on 146.430 simplex.